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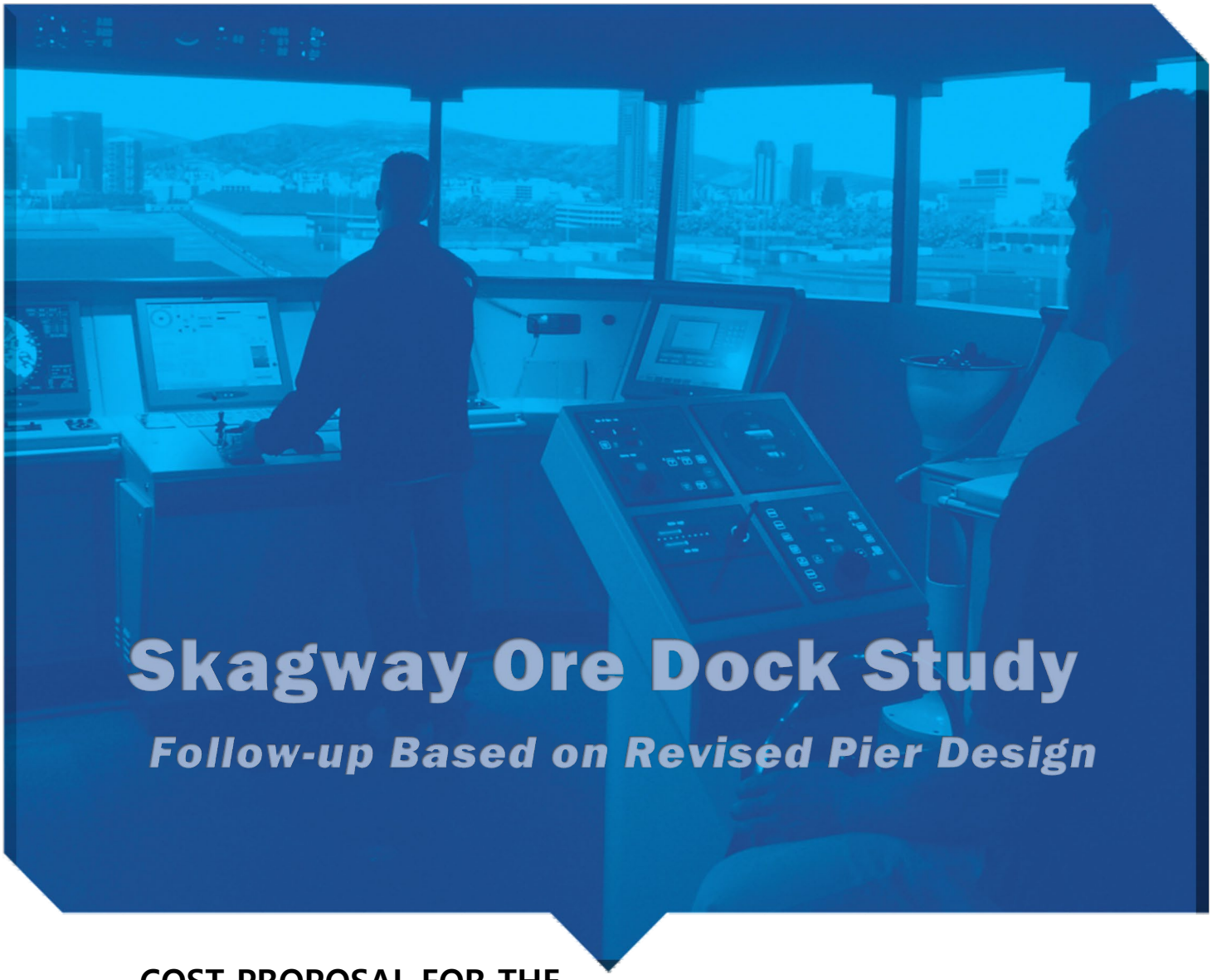

COST PROPOSAL FOR THE

Municipality of Skagway, Alaska

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Proposal #02112022

23 December, 2022

The Maritime Institute of Technology & Graduate Studies (MITAGS) is pleased to present this Proposal for a Full Mission Bridge Navigation Simulation Study. This study is based upon revisions to the Skagway Ore Dock as proposed by KPFF Consulting Engineers.

RFP Name	Skagway Ore Dock Study Follow-up
Project Location	Skagway, Alaska
Purpose	Assist in the determination of the feasibility of the three specified cruise ships mooring at Skagway Ore Dock, and under what parameters, based on new design proposed by KPFF Consulting Engineers
Customer	Municipality of Skagway, Alaska
Customer Representative	Ms. Cody Jennings, Port Director - Municipality of Skagway
Bidder Legal Name and East Coast Headquarters Location (MITAGS)	MITAGS, Inc. 692 Maritime Boulevard, Linthicum Heights, MD 21090-1952 Tel: 410-859-5700, Fax: 410-859-8416 Email: exdir@mitags.org Web: http://www.mitags.org
West Coast Location	1729 Alaskan Way South, Seattle, WA 98134-1146
Bidder Description	MITAGS, Inc. is a 501(c)3 non-profit subsidiary of The M.M.&P. Maritime Advancement, Training, Education and Safety Program "MM&P MATES Program," DBA the Maritime Institute of Technology & Graduate Studies (MITAGS). The MM&P Mates Program is a 501(c)3 Trusteeship. The "MATES Program" was founded by the International Organizations of Masters, Mates and Pilots and the leading U.S. Flag ship operators in 1968. The mission of MITAGS is to enhance professionalism through the development and presentation of internationally recognized programs in leadership, education, training and safety for the maritime industry. MITAGS East and West Coast Campuses are the primary training and simulation centers for the MMP professional deck officers and pilots.
RFP Submittal Date	December 23, 2022
Project Leader	Jonathan Kjaerulff, Director of Business Development
Authorized Signature	
The Project Leader has the authority to bind MITAGS to the terms listed within this proposal	
MITAGS, Inc. Non-Discrimination Policy may be viewed in its entirety at https://www.mitags.org/about-us/	

MITAGS accepts no liability for the use of the findings, conclusions and recommendations provided by the conning pilots in this simulation study. Additionally, MITAGS cannot be held responsible for errors in the data provided by the client and other third parties used for the programming of the simulator hydrodynamic ship / tug models, and databases.

The Municipality of Skagway, Alaska is interested in utilizing simulation to determine various risks associated with arriving and departing at the Port's Ore Dock, if the pier design and mooring arrangements are modified in accordance with a proposal from KPFF Consulting Engineers.

To accomplish the above objective, MITAGS will:

- Utilize existing models of the *M/V Norwegian Bliss, M/V Royal Princess, and M/V Quantum of the Seas*, which have been vetted and approved by the Southeast Alaska Pilots Association (SEAPA);
- Utilize an existing model of the Port of Skagway, Alaska;
- Utilize a model of the Ore Dock modified in accordance with the design submitted by KPFF Consulting Engineers;
- Provide up to three (3) 8-Hour Days of Full-Mission Simulation testing utilizing a single full mission simulator;
- Provide two (2) SEAPA Pilots to serve as Subject Matter Experts to control ship maneuvers in and out of the berth;
- Develop simulation scenarios in cooperation with representatives from the Municipality of Skagway, SEAPA and the cruise lines operating the respective vessels.
- Provide report on various risk areas and recommendations associated with the study.

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1.0 PROJECT ESTIMATE

Below project schedule is to assist the various parties understand the time necessary and various tasks associated with this project.

Task #	Task Name	Duration / Quantity	Unit	Unit Price (USD $)	Total Price (USD $)
1	Ore Dock Visual Database Revisions in accordance with revised dock design	1	Item	$3,200	$3,200
2	Full missions Simulation Testing utilizing a single full mission ship simulator Includes: - Project manager / Simulation operator - Engineering support - Debriefing and meeting rooms	3	Day	$6,850	$20,550
3	Pilot/Shiphandling Expert 1	3	Day	$1,610	$4,830
4	Pilot/Shiphandling Expert 2	3	Day	$1,610	$4,830
5	Facilitator / Report Writer	3	Day	$3,200	$9,600
6	Pilot/Shiphandling Expert 1 Per Diem	3	Days	$311	$933
7	Pilot/Shiphandling Expert 2 Per Diem	3	Days	Days	$311
8	Pilot/Shiphandling Expert airfare allowance	2	R/t Flights	$500	$1,000
9	Box Lunches	24	Ea.	$20	$480
				Total	**$45,734.00**

1.0	**Payment Schedule**
	Line Items #1 is due upon Contract Execution. Line Items #2 - #9 due upon completion of Full Mission Simulations
2.0	**Terms of Payment**
	Invoicing – payment due net 30 days from receipt of invoice. 2% monthly late charge thereafter.
3.0	**Postponement of Scheduled Simulation Test Charges**
	The client may change an agreed upon simulation test date, at no charge, if notice is given at least 30 days prior to the start of the tests. Less than 30 days out, the client may be liable for the additional travel / hotel costs of the consultants, their fees, plus loss of use revenue for the simulator.
4.0	**Acceptance of Contract**
	Acceptance of Proposal: By signing below, you agree that the above prices, specifications and conditions are satisfactory and are hereby accepted. You authorize Maritime Institute Technology and Graduates Studies (MITAGS) to do the work as specified and payment will be made as outlined above. You have read and accepted all the Terms, Limitations and Assumptions within this proposal.

Municipality of Skagway Representative Signature:	
Name (Printed)	
Title:	
Date:	
Purchase Order #:	

1.1 HOTEL AND TRANSPORTATION

MITAGS-West in Seattle, Washington has established business accounts with the following hotels:

- Silver Cloud Hotel - Seattle
- The Courtyard by Marriott Lake Union
- The Holiday Inn Seattle Center

You can learn more about our partner hotels by following this link: https://www.mitags.org/lodging-and-transportation/

1.2 ASSUMPTIONS & LIMITATIONS

The fidelity of the hydrodynamic model is dependent on the accuracy of the source data, mathematical formulas, and recommended adjustments provided by subject matter experts (pilots and captains). The model behaviors are based on the pilot card, windage, general arrangement plans, squat table, and other data provided by client or other sources. The model behaviors, as calculated by the simulator, are adjusted based on the consensus opinion of the MITAGS shiphandling experts and the pilots. Since the adjustments are "subjective," the recommended model adjustments may vary depending on the collective experience of the testing captains and pilots at each session.

The MITAGS simulators provide a close approximation of vessel squat in shallow water. However, an adequate safety margin needs to be used in order to account for changes in squat due to vessel speeds, displacements, channel shoaling, and tidal actions. For this study, squat generally should not be a significant factor due to the water depths and slow speeds.

Model behavior is highly dependent on the accuracy of depth contours (shape), the current and wind flows. In "real world" situations, such forces could vary significantly over the operating area. In addition, the models proposed for these tests are representative of "vessel classes" similar in size and displacement. Vessels of the same class may have significant differences in handling characteristics in real-word conditions.

During berthing exercises, the simulator does not account for the forces on the berth due to a ship rolling in a swell. Damage may occur to the berth in real-word situations with a deeply laden vessel rolling at the berth due to a low swell. *Due to the location of the terminal, swell is not expected to be a factor.*

The test results assume highly experienced pilots operating vessels with the current technology. Operational limits should take into account the need for all local pilots to gain experience using the new equipment and techniques. Limitations should be gradually reduced as the pilots and tug masters gain experience.